

**Notice of Allowability**

Application No.

10/507,350

Examiner

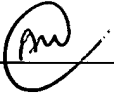
Sang Nguyen

Applicant(s)

KODAMA ET AL.

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

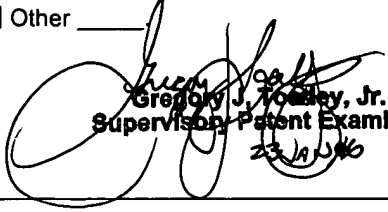
1. ☒ This communication is responsive to 12/29/05.
2. ☒ The allowed claim(s) is/are 1-4 and 11-12 which have been renumbered as indicated claims 1-6.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some\* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- \* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 09/13/04
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

  
Gregory J. Tooley, Jr.  
Supervisory Patent Examiner  
23 JUN 06

## **DETAILED ACTION**

### ***Response to Amendment***

Applicant's response to amendment filed on 12/29/04 has been entered. It is noted that the application contains claims 1-4 and 11-12 and claims 5-10 and 13-23 have been canceled by the amendment on 12/29/05.

### ***Information Disclosure Statement***

The information disclosure statement (IDS) submitted on 09/13/2004 has been entered. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

### ***Allowable Subject Matter***

Claims 1-4 and 11-12 are allowed.

As to independent claims 1-2 are allowable over the prior art for at least the reason that the prior art of record, taken alone or in combination, fails discloses or render obvious a measurement method for a bead cutting shape of electric resistance welded pipe comprising all the specific elements with the specific combination including of a step for taking a luminance greater than said threshold value and a weighted mean of pipe axial direction coordinates indicating said luminance as pseudo-cross-sectional direction coordinates for said width-direction coordinates and pipe axial direction coordinates; and a step for calculating the bead cutting shape of said electric resistance welded pipe based on a pseudo-cross-sectional shape obtained by stringing pseudo-cross sectional direction coordinates in the width direction, and predetermined conversion expression positional relation of light determined from a geometric said

source of said slit light, said image-taking means, and said electric resistance welded pipe in combination with the rest of the limitation of claims 1-2.

As to independent claim 3 is allowable over the prior art for at least the reason that the prior art of record, taken alone or in combination, fails discloses or render obvious a device for a bead cutting shape of electric resistance welded pipe comprising all the specific elements with the specific combination including of an accumulation circuit for calculating luminance which is greater than a threshold calculated computation expression from said first following a predetermined computation expression from said first computation circuit and said second output computation circuit, and the weighted mean indicating said luminance; an image reconfiguring circuit for stinging the weighted mean pipe axial direction coordinates thus calculated generate a pseudo-cross-sectional shape in the width direction; and a coordinates computation circuit for calculating displaying the bead cutting shape of welded pipe based on a predetermined conversion expression said electric resistance determined from a geometric positional relation of said slit light source, said image-taking means, and said electric resistance welded pipe in combination with the rest of the limitation of claim 3.

As to independent claim 4 is allowable over the prior art for at least the reason that the prior art of record, taken alone or in combination, fails discloses or render obvious a device for a bead cutting shape of electric resistance welded pipe comprising all the specific elements with the specific combination including of an image reconfiguring circuit for selecting the output of said first accumulation circuit and said second accumulation circuit thus calculated following output from said branch circuit

and stringing said output the width direction as generate a pseudo-cross-sectional shape; and coordinates computation circuit for calculating and displaying the bead cutting shape of said electric resistance welded pipe based on a predetermined conversion expression determined from a geometric positional relation of said slit light source, said image-taking means, and said electric resistance welded pipe in combination with the rest of the limitation of claim 4.

As to independent claim 11 is allowable over the prior art for at least the reason that the prior art of record, taken alone or in combination, fails discloses or render obvious an electric resistance welded pipe bead shape detecting method comprising all the specific elements with the specific combination including of a step for obtaining a second approximation curve by approximating a base pipe shape excluding the temporary existence range of said bead from said profile of said electric resistance welded pipe with an polynomial expression of a degree which is even and quadratic or higher; and a step for determining, of regions wherein the deviation between said profile said electric resistance welded pipe and said second approximation curve is greater than a predetermined threshold value: a region containing coordinates of said temporary bead apex as being the bead in combination with the rest of the limitation of claim 11.

As to independent claim 12 is allowable over the prior art for at least the reason that the prior art of record, taken alone or in combination, fails discloses or render obvious an electric resistance welded pipe bead shape detecting device comprising all the specific elements with the specific combination including of first range calculating

means for calculating a temporary existence range of the bead by a predetermined calculation expression from the coordinates of said intersection points and the coordinates of said temporary bead apex; second regression computation means for approximating said profile of said electric resistance welded pipe excluding the temporary existence range of the bead thus calculated, polynomial expression of a degree which is even and quadratic or higher; and second range calculating means for outputting, of regions wherein the deviation between output from said second regression computation means is greater than a predetermined threshold value and said profile of said electric resistance welded pipe, region containing the coordinates of said temporary bead apex as being the bead range in combination with the rest of the limitation of claim 12.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sang Nguyen whose telephone number is (571) 272-2425. The examiner can normally be reached on 9:30 am to 7:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley, Jr. can be reached on (571) 272-2800 ext. 77. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SA

Sang Nguyen/SN

January 12, 2006

  
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Art Unit 2877  
Technology Center 2800  
23 JAN 06